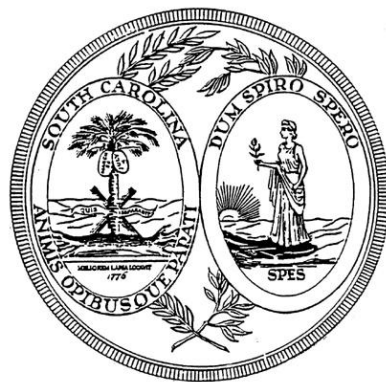


# South Carolina Academic Standards and Performance Indicators for Science 2014



**Instructional Unit Resource**

**4<sup>th</sup> Grade**

# ***South Carolina Academic Standards and Performance Indicators for Science 2014***

## ***Fourth Grade Science Instructional Unit Resource***

As support for implementing the *South Carolina Academic Standards and Performance Indicators for Science 2014*, the standards for Fourth Grade have been grouped into possible units. In the Overview of Units below, the titles for those possible units are listed in columns. Refer to the Overview document to note these unit titles and how Standards, Conceptual Understandings, Performance Indicators, Science and Engineering Practices, and Crosscutting Concepts align. Following the Overview of Units, an Instructional Unit document is provided that delivers guidance and possible resources in teaching our new *South Carolina Academic Standards and Performance Indicators for Science 2014*. The purpose of this document is to provide guidance as to how all the standards in this grade may be grouped into units and how those units might look. Since this document is merely guidance, districts should implement the standards in a manner that addresses the district curriculum and the needs of students. This document is a living document and instructional leaders from around the state will continuously update and expand these resource documents. These documents will be released throughout the 2016-2017 school year with the intentionality of staying ahead of instruction. Teachers should also note that links to the Standards document, A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas, the SEP Support Document, and the Support Document 2.0 are embedded throughout the Instructional Unit format for reference.

### **Acknowledgments**

Jean Baptiste Massieu, famous deaf educator, made a statement that is now considered a French proverb. “Gratitude is the memory of the heart. Indeed, appreciation comes when you feel grateful from the depths of your heart. The head keeps an account of all the benefits you received and gave. But the heart records the feelings of appreciation, humility, and generosity that one feels when someone showers you with kindness.” It is with sincere appreciation that we humbly acknowledge the dedication, hard work and generosity of time provided by teachers and instructional leaders across the state that have made and are continuing to make the Instructional Unit Resources possible.

### Grade 4 Overview of Units

Unit 1		Unit 2		Unit 3		Unit 4	
EARTH SCIENCE: WEATHER AND CLIMATE		EARTH SCIENCE: STARS AND THE SOLAR SYSTEM		PHYSICAL SCIENCE: FORMS OF ENERGY – LIGHT AND SOUND		LIFE SCIENCE: CHARACTERISTICS AND GROWTH OF ORGANISMS	
Standard		Standard		Standard		Standard	
4.E.2		4.E.3		4.P.4		4.L.5	
Conceptual Understanding		Conceptual Understanding		Conceptual Understanding		Conceptual Understanding	
4.E.2A	4.E.2B	4.E.3A	4.E.3B	4.P.4A	4.P.4B	4.L.5A	4.L.5B
Performance Indicators		Performance Indicators		Performance Indicators		Performance Indicators	
4.E.2A.1	4.E.2B.1	4.E.3A.1	4.E.3B.1	4.P.4A.1	4.P.4B.1	4.L.5A.1	4.L.5B.1
4.E.2A.2	4.E.2B.2	4.E.3A.2	4.E.3B.2	4.P.4A.2	4.P.4B.2	4.L.5A.2	4.L.5B.2
	4.E.2B.3	4.E.3A.3	4.E.3B.3	4.P.4A.3	4.P.4B.3	4.L.5A.3	4.L.5B.3
			4.E.3B.4	4.P.4A.4		4.L.5A.4	
				4.P.4A.5			
*Science and Engineering Practices		*Science and Engineering Practices		*Science and Engineering Practices		*Science and Engineering Practices	
4.S.1A.2		4.S.1A.2		4.S.1A.2		4.S.1A.2	
4.S.1A.4		A.S.1A.4		4.S.1A.3		4.S.1A.4	
A.S.1A.6		A.S.1A.6		4.S.1A.4		4.S.1A.6	
A.S.1A.8		4.S.1A.7		4.S.1A.7		4.S.1A.7	
		4.S.1A.8		4.S.1A.8		4.S.1A.8	
				4.S.1B.1			
*Crosscutting Concepts		*Crosscutting Concepts		*Crosscutting Concepts		*Crosscutting Concepts	
1,2,3,4,5,7		1,2,4,7		1,2,3,4,5		1,2,5,6	

*\*Teachers have the discretion to enhance the selected SEP's and CCCs.*

<b>Unit Title</b>
Life Science: Characteristics and Growth of Organisms
<b>Standard</b>
<a href="http://ed.sc.gov/scdoe/assets/file/agency/ccr/Standards-Learning/documents/South_Carolina_Academic_Standards_and_Performance_Indicators_for_Science_2014.pdf">http://ed.sc.gov/scdoe/assets/file/agency/ccr/Standards-Learning/documents/South_Carolina_Academic_Standards_and_Performance_Indicators_for_Science_2014.pdf</a>
4.L.5 The student will demonstrate an understanding of how the structural characteristics and traits of plants and animals allow them to survive, grow, and reproduce

<b>Conceptual Understanding</b>				
4.L.5A Scientists have identified and classified many types of plants and animals. Each plant or animal has a unique pattern of growth and development called a life cycle. Some characteristics (traits) that organisms have are inherited and some result from interactions with the environment				
<b>New Academic Vocabulary</b>				
Some students may need extra support with the following academic vocabulary in order to understand what they are being asked to understand and do. Teaching these terms in an instructional context is recommended rather than teaching the words in isolation. A great time to deliver explicit instruction for the terms would be during the modeling process. Ultimately, the student should be able to use the academic vocabulary in conversation with peers and teachers. These terms are pulled from the essential knowledge portion of the Support Doc 2.0 ( <a href="http://ed.sc.gov/instruction/standards-learning/science/support-documents-and-resources/">http://ed.sc.gov/instruction/standards-learning/science/support-documents-and-resources/</a> ) and further inquiry into the terms can be found there.				
Flowering plants	Nonflowering plants	Vertebrates	Invertebrates	Characteristics
Pollination	Germinate	Reproduce	Inherited traits	
<b>Performance Indicators</b>				
Text highlighted below in <b>orange</b> and <b><i>italicized/underlined</i></b> shows connections to SEP's				
4.L.5A.1 <b><i>Obtain and communicate</i></b> information about the characteristics of plants and animals to develop models which classify plants as flowering or nonflowering and animals as vertebrate or invertebrate.				
4.L.5A.2 <b><i>Analyze and interpret data</i></b> from observations and measurements to compare the stages of development of different seed plants.				
4.L.5A.3 <b><i>Develop and use models</i></b> to compare the stages of growth and development in various animals.				
4.L.5A.4 <b><i>Construct scientific arguments</i></b> to support claims that some characteristics of organisms are inherited from parents and some are influenced by the environment.				

### \*Science and Engineering Practices

Support for the guidance, overviews of learning progressions, and explicit details of each SEP can found in the Science and Engineering Support Doc ([http://ed.sc.gov/scdoe/assets/File/instruction/standards/Science/Support%20Documents/Complete\\_2014SEPsGuide\\_SupportDoc2\\_0.pdf](http://ed.sc.gov/scdoe/assets/File/instruction/standards/Science/Support%20Documents/Complete_2014SEPsGuide_SupportDoc2_0.pdf)). It is important that teachers realize that the nine science and engineering practices are not intended to be used in isolation. Even if a performance indicator for a given standard only lists one of the practices as a performance expectation, scientists and engineers do not use these practices in isolation, but rather as part of an overall sequence of practice. When educators design the learning for their students, it is important that they see how a given performance expectation fits into the broader context of the other science and engineering practices. This will allow teachers to provide comprehensive, authentic learning experiences through which students will develop and demonstrate a deep understanding of scientific concepts.

**4.S.1A.2 Develop, use, and refine models** to (1) understand or represent phenomena, processes, and relationships, (2) test devices or solutions, or (3) communicate ideas to others.

**4.S.1A.4 Analyze and interpret data** from informational texts, observations, measurements, or investigations using a range of methods (such as tabulation)

**4.S.1A.7 Construct scientific arguments** to support claims, explanations, or designs using evidence from observations, data, or informational texts

**4.S.1A.8 Obtain and evaluate** informational texts, observations, data collected, or discussions to (1) generate and answer questions, (2) understand phenomena, (3) develop models, or (4) support explanations, claims, or designs. **Communicate** observations and explanations using the conventions and expectations of oral and written language.

### \*Cross Cutting Concepts (<http://www.nap.edu/read/13165/chapter/8>)

The link above provides support from the Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas (2012) The text in **blue** and **italicized/underlined** below provides a brief explanation of how the specific content ties to the CCC's.

1. **Patterns** The National Research Council (2012) states that “observed patterns of forms and events guide organization and classification, and they prompt questions about relationships and the factors that influence them” (p. 84). *Patterns exist in plants that produce flowering and non-flowering plants.*

2. **Cause and Effect:** The National Research Council (2012) states “events have causes, sometimes simple, sometimes multifaceted. A major activity of science is investigating and explaining causal relationships and the mechanisms by which they are mediated. Such mechanisms can then be tested across given contexts and used to predict and explain events in new contexts” (p. 84).prompt questions about relationships and the factors that influence them” (p. 84). *When plants are pollinated, seeds are produced and stored in fruit.*

5. **Energy and Matter:** The National Research Council (2012) states “tracking fluxes of energy and matter into, out of, and within systems helps one understand the systems’ possibilities and limitations” (p. 84). *Energy is essential for all stages of plant and animal development.*

*\*Teachers have the discretion to enhance the selected SEP's and CCC's.*

Prior Knowledge
<ul style="list-style-type: none"> <li>1.L.5A.1 – Plant survival, growth, reproduction.</li> <li>1.L.5A.2 – Stages of flowering plant development</li> <li>2.L.5A.1 – Classification of animals</li> </ul>
Subsequent Knowledge
<ul style="list-style-type: none"> <li>N/A</li> </ul>

Possible Instructional Strategies/Lessons
Strategies and lessons that will enable students to master the standard and/or indicator.
<ul style="list-style-type: none"> <li>4.L.5A.1 <u>Georgia’s Amazing Coast</u> This is a curriculum to use for classifying animals and plants. This resource can be found at: <a href="http://www.cosee-se.org/ForEducators/barrierislandsandestuaries/">http://www.cosee-se.org/ForEducators/barrierislandsandestuaries/</a></li> <li>4.L.5A.1 <u>How Plants are Grouped</u> This lesson can be used to teach flowering and nonflowering plants. This resource can be found at: <a href="https://www.nps.gov/timu/learn/education/upload/how-plants-are-grouped-and-seasonal-changes-unit-plan.pdf">https://www.nps.gov/timu/learn/education/upload/how-plants-are-grouped-and-seasonal-changes-unit-plan.pdf</a></li> <li>4.L.5A.2 <u>It’s Not Easy Being Green!</u> Students will learn the parts of a plant, life cycle and explore how adaptations help plants survive and grow. <a href="http://rpsec.usca.edu/workshops/SISSI/SISSI3-5AikenJune2015/lessons/G4PlantsIt'sNotEasyBeingGreenSISSI-lesson.pdf">http://rpsec.usca.edu/workshops/SISSI/SISSI3-5AikenJune2015/lessons/G4PlantsIt'sNotEasyBeingGreenSISSI-lesson.pdf</a></li> <li>4.L.5A.3 <u>Birth, Growth and Development</u> This lesson will allow students to examine the developmental stages of animals. This resource can be found at: <a href="http://www.pbslearningmedia.org/resource/tdc02.sci.life.cyc.lp_lifestages/birth-growth-and-development/">http://www.pbslearningmedia.org/resource/tdc02.sci.life.cyc.lp_lifestages/birth-growth-and-development/</a></li> <li>4.L.5A.4 <u>Life Cycles</u> Students will identify learned and inherited behaviors and describe and compare family traits and characteristics. This resource can be found at: <a href="http://www.discoveryeducation.com/teachers/free-lesson-plans/life-cycles.cfm">http://www.discoveryeducation.com/teachers/free-lesson-plans/life-cycles.cfm</a></li> </ul>
Resources
<ul style="list-style-type: none"> <li>4.L.5A.4 <u>Inherited Traits</u> This resource allows students to see the characteristics of organisms are inherited and some are influenced by the environment. This resource can be found at: <a href="https://prezi.com/-fej4yeeau/life-science-inherited-traits/">https://prezi.com/-fej4yeeau/life-science-inherited-traits/</a></li> <li>4.L.5A.4 <u>Mammals and Their Parents, Perfect Together</u> This resource allows students to see the characteristics of organisms are inherited and some are influenced by the environment. This resource can be found at: <a href="http://betterlesson.com/lesson/623417/mammals-and-their-">http://betterlesson.com/lesson/623417/mammals-and-their-</a></li> </ul>

[parents-perfect-together](#)

- 4.L.5A.4 Examples of Inherited Traits This resource is a resource to show students different inherited traits they may have. This resource can be found at: <https://web.archive.org/web/20120227034335/http://www.fi.edu/guide/knox/Traits/traitsexamples.pdf>
- 4.L.5A.1 Flowering and Nonflowering Plants This is a video to use to show the differences between flowering and nonflowering plants. This resource can be found at: [https://www.youtube.com/watch?v=548\\_UeJoAks](https://www.youtube.com/watch?v=548_UeJoAks)
- 4.L.5A.1 Nonflowering Plants This video will show examples of nonflowering plants. This resource can be found at: <https://www.youtube.com/watch?v=w19FuCrewkA>

### **Sample Formative Assessment Tasks/Questions**

Additional sample formative assessment tasks/questions for grade bands are located at the end of each of the SEP Support Doc

([http://ed.sc.gov/scdoe/assets/File/Instruction/standards/Science/Support%20Documents/Complete\\_2014SEPsGuide\\_SupportDoc2\\_0.pdf](http://ed.sc.gov/scdoe/assets/File/Instruction/standards/Science/Support%20Documents/Complete_2014SEPsGuide_SupportDoc2_0.pdf))

- 4.L.5A.1 Flowering and Nonflowering Plants This Venn Diagram can be used to assess flowering and nonflowering. This resource can be found at: <http://saalt.com.au/sciweb/activity/GP/worksheets/lifeplantws2.pdf>
- 4.L.5A.1 Vertebrates and Invertebrates This assessment can be used to have students sort vertebrates and invertebrates. This resource can be found at: <http://www.education.com/worksheet/article/vertebrates-and-invertebrates/>
- 4.L.5A.1 Vertebrates This assessment can be used to sort vertebrates. This resource can be found at: [https://www.superteacherworksheets.com/animals/vertebrate-paste\\_WMMTD.pdf?up=1466611200](https://www.superteacherworksheets.com/animals/vertebrate-paste_WMMTD.pdf?up=1466611200)

- 4.L.5A.1 Sam was researching the characteristics of vertebrates and invertebrates. He recorded information in a table but forgot to label the columns. Analyze the information to determine how the columns should be labeled. Label column 1 as vertebrate or invertebrate and column 2 as vertebrate or invertebrate.

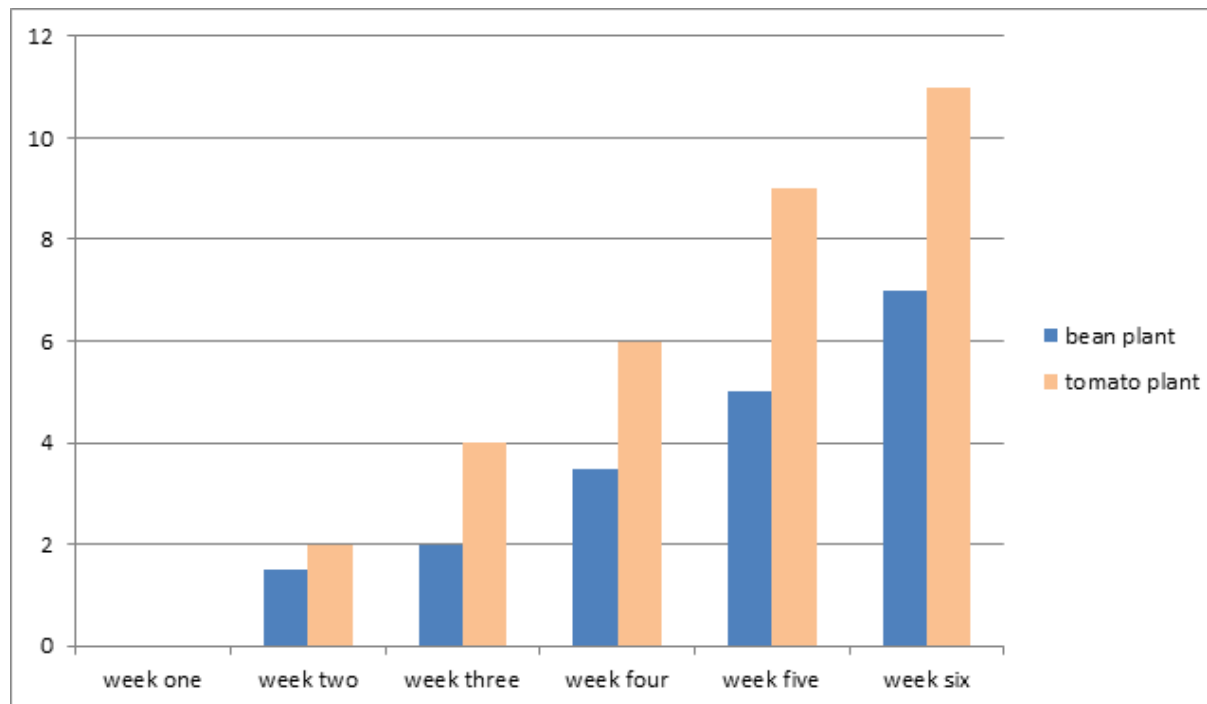
**Characteristics of Vertebrates and Invertebrates**

1.	2.
Has a backbone	No backbone
Examples are fish, amphibians, reptiles, birds and mammals	Examples include sponges, worms, shrimp, crayfish, insects, crabs, claims
Protective skin covering	Some have hard outer covering or shell
Inside skeleton	Some do not have hard outer covering or shell
Muscles attached to bones	
Lungs or gills	



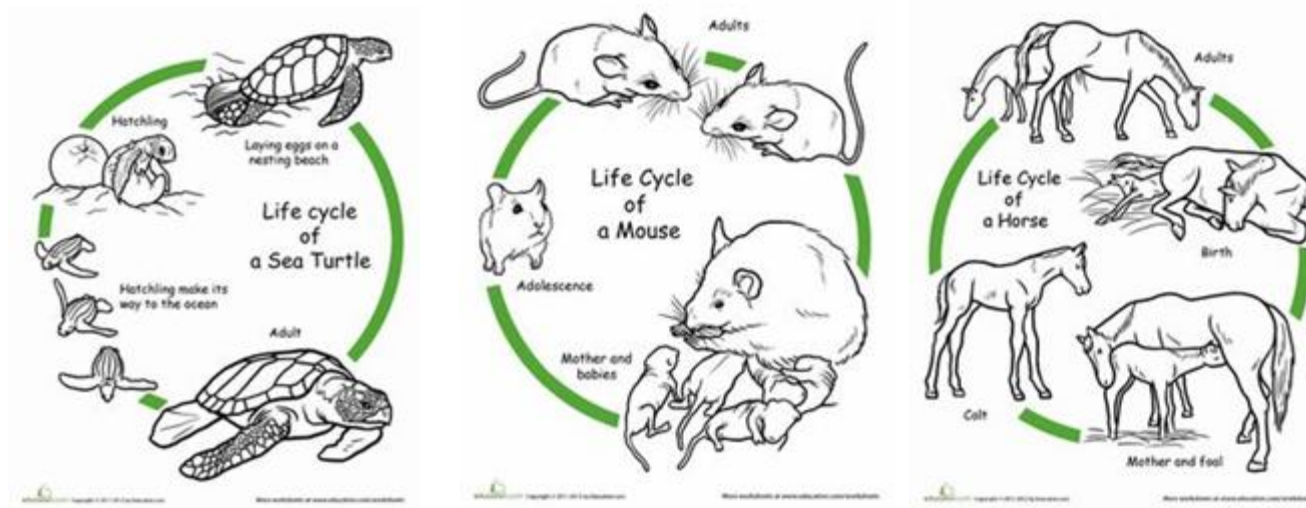
- 4.L.5A.2 Jennifer planted a bean seed and a tomato seed. She measured them each week. She made a graph to track their growth. After six weeks she analyzed the data to see how their growth compared. What are two observations she might make?

Bean Seed and Tomato Seed Growth



1. \_\_\_\_\_  
\_\_\_\_\_
2. \_\_\_\_\_  
\_\_\_\_\_

- 4.L.5A.3 Examine the diagrams of the life cycle of a sea turtle, the life cycle of a mouse and the life cycle of a horse.



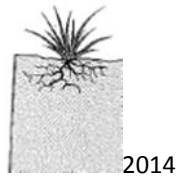
Life cycles are not the same for all animals. Which of the two life cycles shown above are most like each other? Explain why.

The life cycle of a \_\_\_\_\_ and \_\_\_\_\_ are most alike.

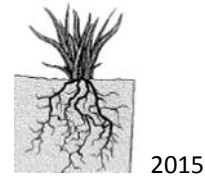
Explanation: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

- 4.L.5A.4 Below are pictures of two of the same kind of plant. Plant A was planted on September 13, 2014. Plant A was observed on November 1, 2014 and the picture was made. Plant B was planted on September 13, 2015. Plant B was observed on November 1, 2015 and the picture was made. Both were planted at Boone Hall Plantation in the same soil and in the same location.

Plant A



Plant B



Based on the needs of plants, what might cause the difference in the size of the plants?

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<b>Unit Title</b>
Life Science: Characteristics and Growth of Organisms
<b>Standard</b>
<a href="http://ed.sc.gov/scdoe/assets/file/agency/ccr/Standards-Learning/documents/South_Carolina_Academic_Standards_and_Performance_Indicators_for_Science_2014.pdf">http://ed.sc.gov/scdoe/assets/file/agency/ccr/Standards-Learning/documents/South_Carolina_Academic_Standards_and_Performance_Indicators_for_Science_2014.pdf</a>
4.L.5 The student will demonstrate an understanding of how the structural characteristics and traits of plants and animals allow them to survive, grow, and reproduce

<b>Conceptual Understanding</b>				
4.L.5B. Plants and animals have physical characteristics that allow them to receive information from the environment. Structural adaptations within groups of plants and animals allow them to better survive and reproduce.				
<b>New Academic Vocabulary</b>				
Some students may need extra support with the following academic vocabulary in order to understand what they are being asked to understand and do. Teaching these terms in an instructional context is recommended rather than teaching the words in isolation. A great time to deliver explicit instruction for the terms would be during the modeling process. Ultimately, the student should be able to use the academic vocabulary in conversation with peers and teachers. These terms are pulled from the essential knowledge portion of the Support Doc 2.0 ( <a href="http://ed.sc.gov/instruction/standards-learning/science/support-documents-and-resources/">http://ed.sc.gov/instruction/standards-learning/science/support-documents-and-resources/</a> ) and further inquiry into the terms can be found there.				
Senses	Sensory organs	Adaptations	Seed dispersal	Reproduce
Defense	Locomotion	Camouflage		
<b>Performance Indicators</b>				
Text highlighted below in <i>orange</i> and <i>italicized/underlined</i> shows connections to SEP's				
4.L.5B.1 <i><u>Develop and use models</u></i> to compare how humans and other animals use their senses and sensory organs to detect and respond to signals from the environment.				
4.L.5B.2 <i><u>Construct explanations</u></i> for how structural adaptations (such as the types of roots, stems, or leaves; color of flowers; or seed dispersal) allow plants to survive and reproduce.				
4.L.5B.3 <i><u>Construct explanations</u></i> for how structural adaptations (such as methods for defense, locomotion, obtaining resources, or camouflage) allow animals to survive in the environment.				

### \*Science and Engineering Practices

Support for the guidance, overviews of learning progressions, and explicit details of each SEP can found in the Science and Engineering Support Doc ([http://ed.sc.gov/scdoe/assets/File/instruction/standards/Science/Support%20Documents/Complete\\_2014SEPsGuide\\_SupportDoc2\\_0.pdf](http://ed.sc.gov/scdoe/assets/File/instruction/standards/Science/Support%20Documents/Complete_2014SEPsGuide_SupportDoc2_0.pdf)). It is important that teachers realize that the nine science and engineering practices are not intended to be used in isolation. Even if a performance indicator for a given standard only lists one of the practices as a performance expectation, scientists and engineers do not use these practices in isolation, but rather as part of an overall sequence of practice. When educators design the learning for their students, it is important that they see how a given performance expectation fits into the broader context of the other science and engineering practices. This will allow teachers to provide comprehensive, authentic learning experiences through which students will develop and demonstrate a deep understanding of scientific concepts.

**4.S.1A.2 Develop, use, and refine models** to (1) understand or represent phenomena, processes, and relationships, (2) test devices or solutions, or (3) communicate ideas to others.

**4.S.1A.6 Construct explanations** of phenomena using (1) scientific evidence and models, (2) conclusions from scientific investigations, (3) predictions based on observations and measurements, or (4) data communicated in graphs, tables, or diagrams.

### \*Cross Cutting Concepts (<http://www.nap.edu/read/13165/chapter/8>)

The link above provides support from the Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas (2012) The text in **blue** and **italicized/underlined** below provides a brief explanation of how the specific content ties to the CCC's.

2. **Cause and Effect:** The National Research Council (2012) states “events have causes, sometimes simple, sometimes multifaceted. A major activity of science is investigating and explaining causal relationships and the mechanisms by which they are mediated. Such mechanisms can then be tested across given contexts and used to predict and explain events in new contexts” (p. 84).prompt questions about relationships and the factors that influence them” (p. 84). *As humans and animals use their sensory organs, they respond to signals in their environment.*

6. **Structure and function:** The National Research Council (2012) states that “the way in which an object or living thing is shaped and its substructure determine many of its properties and functions” (p. 84). *Structural adaptations of plants allow plants to grow and reproduce.*

*\*Teachers have the discretion to enhance the selected SEP's and CCC's.*

### Prior Knowledge

- N/A

### Subsequent Knowledge

- 6.L.5B.3 – Structures and functions of flowering plants
- 6.L.5B.4 – Changes in environmental factors; growth and development of flowering plants.
- 6.L.4B.1 – Vertebrates and invertebrates

### Possible Instructional Strategies/Lessons

Strategies and lessons that will enable students to master the standard and/or indicator.

- 4.L.5B.1 "It's Not Easy Being Green!" This lesson allows students to explore how plants adapt to their environment and investigate how these adaptations help plants survive. This resource can be found at: <http://rpsec.usca.edu/workshops/SSSI/SSSI3-5AikenJune2015/lessons/G4PlantsIt'sNotEasyBeingGreenSSSI-lesson.pdf>
- 4.L.5B.1 Senses Unit This unit can be used to show how animals use their sensory organs to respond to the environment. This resource can be found at: [https://www.middletownschoools.org/uploaded/Curriculum/Curriculum\\_Office/Files/Gr\\_5\\_Senses.pdf](https://www.middletownschoools.org/uploaded/Curriculum/Curriculum_Office/Files/Gr_5_Senses.pdf)
- 4.L.5B.2 Become an Adaptation Expert! This lesson allows students to create their own animal with adaptations. This resource can be found at: <http://animaladaptationwebquest.weebly.com/learning-challenge.html>
- 4.L.5B.2 Plant Adaptations This lesson allows students to define the meaning of adaptations. This resource can be found at: <https://pdesas.org/module/content/resources/13940/view.ashx>
- 4.L.5B.3 Living Life as a Plant This lesson allows students to investigate how plants respond to their environment. This resource can be found at: <http://www.pbslearningmedia.org/resource/lps07.sci.life.oate.lplifeasplant/living-life-as-a-plant/>

### Resources

- 4.L.5B.1 Animals Great resource for animal adaptations. This resource can be found at: [http://www.internet4classrooms.com/science\\_elem\\_animals.htm](http://www.internet4classrooms.com/science_elem_animals.htm)
- 4.L.5B.2 Plant Adaptation Slideshow on plant adaptations. This resource can be found at: <http://www.slideshare.net/MMoiraWhitehouse/plant-adaptations-teach>
- 4.L.5B.3 Adaptations 2012 ppt. Slideshow on living things change to fit their environment. This resource can be found at: [www.rcboe.org/.../filedownload.aswww.rcboe.org/.../filedownload.ashx?...hx?...](http://www.rcboe.org/.../filedownload.aswww.rcboe.org/.../filedownload.ashx?...hx?...)
- 4.L.5B.3 Animal Adaptations Videos that show different animal adaptations. This resource can be found at: <http://www.watchknowlearn.org/Category.aspx?CategoryID=2855>

### Sample Formative Assessment Tasks/Questions

Additional sample formative assessment tasks/questions for grade bands are located at the end of each of the SEP Support Doc

([http://ed.sc.gov/scdoe/assets/File/instruction/standards/Science/Support%20Documents/Complete\\_2014SEPsGuide\\_SupportDoc2\\_0.pdf](http://ed.sc.gov/scdoe/assets/File/instruction/standards/Science/Support%20Documents/Complete_2014SEPsGuide_SupportDoc2_0.pdf))

- 4.L.5B.1 Become an Adaptation Expert! This rubric will assess the lesson where students create their own animal adaptations. This resource can be found at: <http://animaladaptationwebquest.weebly.com/assessment.html>
- 4.L.5B.1 Plant and animal Adaptations (pages 9-10) This assessment compares two species of plants and their adaptations. This resource can be found at: [http://digitalcommons.trinity.edu/cgi/viewcontent.cgi?article=1023&context=educ\\_understandings](http://digitalcommons.trinity.edu/cgi/viewcontent.cgi?article=1023&context=educ_understandings)
- 4.L.5B.3 Animal Defenses This is a performance task to assess animal defenses. This resource can be found at: [http://www.ode.state.or.us/wma/teachlearn/commoncore/oace-2012-13\\_sbacgr4elaanimal-performance.pdf](http://www.ode.state.or.us/wma/teachlearn/commoncore/oace-2012-13_sbacgr4elaanimal-performance.pdf)
- 4.L.5B.1 Humans and other animals use their senses and sensory organs to detect and respond to signals from the environment that allow them to survive and grow. Fill in the following chart with examples showing how each of the senses helps humans and other animals survive and grow in their environment.

Senses	Used for	Example of an organism using that sense to
Sight	Ex. Detecting shape and movement	Ex. Owl can see and catch its prey
Hearing		
Taste		
Smell		
Touch		

- 4.L.5B.2 Examine Plant A and Plant B shown below. Choose one plant structure to compare from Plant A and Plant B and explain how this structure has adapted to help the plant grow and survive in its environment.

Plant A (desert plant)



Plant B (forest plant)



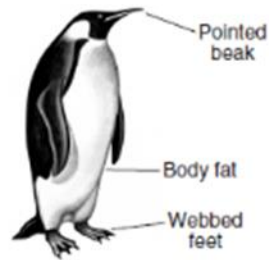
The structure I chose to compare is \_\_\_\_\_.

Plant A: \_\_\_\_\_ It helps the plant grow and survive because \_\_\_\_\_

Plant B: \_\_\_\_\_ It helps the plant grow and survive because \_\_\_\_\_



- 4.L.5B.3 The diagram below shows a penguin. This penguin lives near water in a very cold environment. Three body structures are labeled. Select one body structure labeled in the diagram. Explain how it helps the penguin survive in its environment.



Name of body structure \_\_\_\_\_ How does this body structure help the penguin survive in its environment?

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